THE AGRICULTURAL SITUATION

SEPTEMBER 1945

A Brief Summary of Economic Conditions

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IN THIS ISSUE

FEEDING millions of people throughout the world during half a decade of war is an achievement of which American farmers can be justly proud. But though the war's end brings a deep feeling of relief, it also raises important questions in the minds of most farmers who have not forgotten the bitter fruits of victory of World War I. This time Congress has directed the Department of Agriculture to support prices of many farm products at 90 percent or more of parity for at least two years more. Even so, civilian demand for food and other agricultural products is expected to continue sufficiently high well into 1946 to maintain the prices of most farm products close to current levels, which are generally above support levels. Foreign shortages of food and clothing, especially in Europe, are likely to be more serious during the coming winter than at any time since the start of the war. Purchases of American farm products for foreign relief purposes will tend to increase as military takings decrease. * * * Despite a slight downturn, the August index of prices received by farmers was only a trifle below the record level established in June and July of this year.

663930°—45——1

Commodity Reviews

DEMAND AND PRICE

CIVILIAN demand for food and other agricultural products probably will continue sufficiently high well into 1946 to maintain the prices of most farm products close to current levels. Shortages of food and clothing, especially in Europe, are likely to be more serious during the coming winter than at any time since the start of the war. Purchases of farm products for foreign relief will tend to increase as military takings decrease.

The decline in the wage income of industrial workers, which has been under way for several months, will be accelerated in the immediate months ahead. But total consumer incomes are not likely to be reduced enough to completely close the existing gap between civilian demand at current prices and available supplies of many farm products.

The downward trend in consumer incomes is largely due to the recent declines in industrial production, industrial employment, and wage income of industrial workers. Most of the decline in industrial production has been in durable manufactured goods, particularly machinery and transportation equipment. Offsetting this to a minor degree are slight increases in private construction and in production of equipment in the first half of 1945.

As a result of these trends, nonagricultural income leveled off in the second quarter of 1945 from the wartime peak reached in the first quarter of the year and will decline at a more rapid rate during the second half of the year as the production of war goods is drastically reduced.

The wage income of industrial workers declined about 3 percent per month during the spring and early summer, compared with an average of one-third of 1 percent during 1944. The decline in 1945 has all been in the earnings of factory workers, especially the group largely concentrated in factories manufacturing durable goods. The decline in the wage income of industrial workers has been somewhat greater than the decline in the number of persons employed.

NET FARM INCOME

LAST year's net income from agriculture of 11.9 billion dollars to farm operators was about the same as the 11.7 billion in 1943. Most States in the northern part of the country saw declines while increases were registered by the majority of the States in the South and West.

The greatest regional decrease was in the West North Central Region where net income dropped 11 percent. Reduced income from meat animals was mainly responsible for the decline of 5 percent in cash receipts for the region, while substantial gains in expenditures for fertilizer and lime, hired labor, and maintenance or depreciation accounted for most of the increase of 3 percent in expenses.

In Minnesota, where expenditures for many items exceeded 1944, net income dropped 17 percent, the largest decline in any State.

The greatest regional increase in net income was made by the South Atlantic Region with a gain of 20 percent. Pronounced increases in cash receipts from cotton, tobacco, peaches, and dairy products were largely responsible for the 15 percent gain in total cash receipts from farm marketings, while expenditures increased 4 percent.

Net income in South Carolina increased 43 percent, more than any other State. Cash receipts from cotton, tobacco, and peaches made decided increases and total cash receipts from farm marketings rose 30 percent. But because of increased outlays for hired labor and depreciation, production expenses rose 6 percent.

Although net income for the United States showed little change in 1944

Income of Farm Operators, by States, 1943 and 1944

State	1943			1944		
	Cash receipts from farm marketings [1]	Production expenses [2]	Realized net income from agriculture [3]	Cash receipts from farm marketings [1]	Production expenses [2]	Realized net income from agriculture [3]
	1,000 dollars	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*	*1,000 dollars*
Maine	122,342	84,933	57,451	121,188	90,182	52,259
New Hampshire	43,758	34,814	18,797	43,668	35,006	18,956
Vermont	74,499	58,388	29,846	75,848	60,881	29,467
Massachusetts	146,843	117,017	47,985	144,375	116,235	47,212
Rhode Island	16,819	13,771	5,125	16,969	14,304	4,809
Connecticut	109,537	85,955	41,114	102,646	86,755	34,690
New England	513,798	394,878	200,318	504,694	403,363	187,393
New York	599,860	444,355	253,751	613,423	463,942	253,225
New Jersey	194,882	145,938	67,376	191,437	147,573	62,825
Pennsylvania	506,309	369,096	240,564	521,520	385,030	248,475
Middle Atlantic	1,301,051	959,389	561,691	1,326,380	996,545	564,525
Ohio	708,005	377,114	452,342	697,914	388,455	435,381
Indiana	661,794	342,499	401,623	656,542	366,204	375,232
Illinois	1,143,518	614,309	634,447	1,124,289	649,483	579,249
Michigan	473,704	249,103	308,466	493,350	258,459	320,606
Wisconsin	713,731	344,590	461,112	729,690	366,592	456,452
East North Central	3,700,752	1,927,615	2,257,990	3,701,785	2,029,193	2,166,920
Minnesota	883,357	392,458	585,225	798,528	411,217	484,277
Iowa	1,556,331	764,149	900,535	1,458,998	788,663	777,465
Missouri	682,792	333,248	462,977	693,558	345,962	460,758
North Dakota	407,524	198,859	239,578	409,865	211,621	228,434
South Dakota	356,042	183,299	199,713	337,212	193,368	170,439
Nebraska	659,663	387,457	322,065	620,294	382,115	286,706
Kansas	718,841	394,237	384,915	683,026	396,519	345,715
West North Central	5,264,550	2,653,707	3,095,008	5,001,481	2,729,465	2,753,794
Delaware	82,837	60,188	27,903	81,341	56,650	30,261
Maryland	159,470	115,014	72,127	158,009	116,434	70,833
Virginia	277,388	173,138	206,113	319,848	182,780	244,969
West Virginia	81,161	56,274	72,447	85,363	58,586	77,533
North Carolina	487,402	223,047	400,137	615,046	232,432	530,513
South Carolina	188,150	125,972	125,413	245,222	133,259	179,191
Georgia	335,091	167,392	276,749	380,475	175,106	319,126
Florida	322,744	156,379	189,170	337,757	165,382	195,212
South Atlantic	1,934,243	1,077,404	1,370,059	2,223,061	1,120,629	1,647,638
Kentucky	342,892	158,045	291,009	356,655	169,001	292,521
Tennessee	300,981	146,600	262,048	316,555	156,212	273,096
Alabama	242,810	124,995	221,284	262,336	128,129	243,995
Mississippi	332,394	141,615	282,090	360,255	147,583	309,383
East South Central	1,219,077	571,255	1,056,431	1,295,801	600,925	1,118,995
Arkansas	317,806	141,280	248,605	340,318	149,369	267,591
Louisiana	242,352	116,025	180,438	235,358	122,336	166,208
Oklahoma	388,141	208,464	246,813	438,700	218,899	288,159
Texas	1,201,687	610,968	758,621	1,222,596	645,006	742,021
West South Central	2,149,986	1,076,737	1,434,477	2,236,972	1,135,610	1,463,979
Montana	219,280	116,205	119,635	236,753	116,330	137,064
Idaho	226,367	115,858	128,107	236,687	122,746	131,619
Wyoming	91,049	49,001	49,206	91,562	50,771	47,951
Colorado	316,354	199,542	137,145	301,400	193,643	128,847
New Mexico	107,043	62,661	54,193	107,595	60,741	61,029
Arizona	130,694	73,808	63,750	123,541	72,381	58,301
Utah	103,075	50,596	61,997	115,735	56,212	68,750
Nevada	23,322	13,726	11,782	24,985	13,462	14,754
Mountain	1,217,184	681,397	625,815	1,238,258	686,286	648,315
Washington	413,134	233,307	218,717	453,056	252,552	241,816
Oregon	265,893	148,222	144,730	281,995	156,871	153,507
California	1,582,919	867,277	769,656	1,711,964	947,267	820,526
Pacific	2,261,946	1,248,806	1,133,103	2,447,015	1,356,690	1,215,849

[1] Includes estimated cash receipts from sales of day-old chicks.
[2] Includes estimated purchase expenses of day-old chicks.
[3] Excludes Government payments. Represents cash receipts, plus non-money income, minus production expenses.

NOTE: For more complete explanation of terms see *Farm Income Situation* for July 1945, issued by BAE.

Index Numbers of Prices Received and Paid by Farmers

[1940–14=100]

Year and month	Prices received	Prices paid, interest, and taxes	Parity ratio [1]
1935–39 average	107	128	84
1940	100	125	80
1941	124	132	94
1942	159	150	106
1943	192	162	119
1944	195	170	115
1944			
August	193	170	114
September	192	170	113
October	194	170	114
November	196	171	115
December	200	171	117
1945			
January	201	172	117
February	199	172	116
March	198	173	114
April	203	173	117
May	200	173	116
June	206	173	119
July	206	173	119
August	204	173	118

[1] Ratio of prices received by farmers to prices paid, interest, and taxes.

compared with 1943, cash receipts from wheat, cotton, tobacco, and fruit made substantial gains and total income from farm marketings increased slightly. This increase was offset, however, by greater expenditures.

LIVESTOCK

CIVILIAN meat supplies this fall have become more plentiful than last summer as military purchases have been reduced and as marketings of all classes of meat animals have increased seasonally.

Meat purchases by the armed forces are expected to taper off rather sharply in the months ahead. Exports of meat probably will be materially less than in each of the years 1943–45 when shipments to lend-lease countries were large.

In 1944 noncivilian purchases of meat accounted for 23 percent of total meat production, estimated at 24.6 billion pounds (dressed meat basis). In 1945 the noncivilian share will be proportionally larger than in 1944, as total procurement for war uses is indicated to be larger than in 1944 and production is indicated around 2 billion pounds smaller.

Despite a substantial reduction in army meat purchases for the remainder of 1945 and in 1946, meat supplies during the winter and spring at least are likely to fall below the demand at present meat prices.

Through the first half of 1946 prices of fed cattle, hogs, and lambs probably will be maintained at or near present levels. Prices of the lower grades of cattle probably will be a little lower in the first half of 1946 than in the same period of 1945 with an indicated large market supply and a material reduction in canned beef requirements of the army.

DAIRY PRODUCTS

THE end of the war has favorably affected prospective supplies of dairy products available for civilians for the next few months, especially canned and powdered milk as well as fluid cream. This will be made possible through reduced military purchases of dried and evaporated milk, and also the suspension of War Food Order limiting the sale of fluid milk and cream.

Prices received by farmers for the fall and winter months will probably not be much different than a year earlier. The gap between civilian demand and supply of dairy products for the past 2½ years has been very wide. A considerable reduction in either consumer purchasing power or noncivilian takings will be necessary before this gap is reduced. Retail prices of most dairy products are at 1942 levels, while consumer purchasing power at the present time is about a third above 1942. For the calendar year 1945 it appears that civilian consumers will absorb about 101 billion pounds of milk equivalent, compared with 110 billion pounds in 1942.

Unit returns, including dairy production payments, will be materially ahead of last years, at least through

March 1946, because of higher rates of payments on butterfat. Returns from dairying compared with other livestock enterprises or with feed prices will be favorable for continuation of a high production per cow.

Early in 1945 milk cow numbers probably reached an all-time peak for the next few years. The 1945 mid-year cow numbers showed a reduction of 2 percent from June of 1944.

POULTRY AND EGGS

PRICES received by farmers for eggs after November are expected to decline much more than seasonally. Reduction in military requirements and an increase in the supply of red meats will materially effect the demand for shell eggs. Considerable weakening will probably occur in the demand for eggs, and prices received by farmers in the next few months will probably decline to support levels.

Egg production in the early part of 1946 will probably be at least equal to that in the early part of 1945.

Average prices received by farmers for chickens and turkeys will probably decline from the all-time peak reached during the summer of 1945. Such declines, however, are not expected to be very significant because the gap between demand and supply for chicken and turkey is very wide. Army procurement of both commodities is expected to be at a reduced rate.

FEED

FAVORABLE growing conditions during July and early August materially improved the outlook for feed grain supplies for the 1945–46 feeding season. Supplies for the four principal feed grains—corn, oats, barley, and sorghum grains—may total about 130 million tons, only about 2 million tons less than the 1944–45 supply.

Prices of Farm Products

[Estimates of average prices received by farmers at local farm markets based on reports to the Bureau of Agricultural Economics. Average of reports covering the United States weighted according to relative importance of district and State]

	5-year average		Aug. 15, 1944	July 15, 1945	Aug. 15, 1945	Parity price Aug. 15, 1945
	August 1909–July 1914	January 1935–December 1939				
Wheat (bushel)—dollars	0.884	0.837	1.35	1.46	1.45	1.53
Rice (bushel)—do	.813	.742	[1] 1.70	1.76	1.64	1.41
Corn (bushel)—do	.642	.691	1.17	1.12	1.13	1.11
Oats (bushel)—do	.399	.340	.708	.659	.589	.690
Hay (ton)—do	11.87	8.87	14.30	15.40	14.60	20.50
Cotton (pound)—cents	12.4	10.34	20.15	21.25	21.3	21.45
Soybeans (bushel)—dollars	[2] .96	.954	1.90	2.16	2.12	[3] 1.66
Peanuts (pound)—cents	4.8	3.55	7.64	8.18	8.19	8.30
Potatoes (bushel)—dollars	.697	7.17	[1] 1.57	1.83	1.67	1.25
Apples (bushel)—do	.96	.90	2.12	2.95	2.77	1.66
Oranges on tree, per box—do	[4] 1.81	1.11	3.01	2.90	1.97	[3] 2.03
Hogs (hundredweight)—do	7.27	8.38	13.50	14.00	14.00	12.60
Beef cattle (hundredweight)—do	5.42	6.56	[1] 10.30	12.80	12.50	9.38
Veal calves (hundredweight)—do	6.75	7.80	[1] 12.40	13.90	13.80	11.70
Lambs (hundredweight)—do	5.88	7.79	[1] 12.20	13.50	13.00	10.20
Butterfat (pound) [5]—cents	26.3	29.1	50.2	50.2	50.3	[6] 43.3
Milk, wholesale (100-pound) [5]—dollars	1.60	1.81	[1] 3.19	3.09	3.14	[6] 2.71
Chickens (pound)—cents	11.4	14.9	24.1	28.5	28.6	19.7
Eggs (dozen)—do	21.5	21.7	33.0	37.9	40.8	[6] 36.5
Wool (pound)—do	18.3	23.8	[1] 42.6	41.4	41.7	31.7

[1] Revised.
[2] Comparable base price, August 1909–July 1914.
[3] Comparable price computed under sec. 3 (b) Price Control Act.
[4] Comparable base price, August 1919–July 1929.
[5] Does not include dairy production payments made directly to farmers by county AAA offices.
[6] Adjusted for seasonality.

The prospective number of grain-consuming animal units expected to be on farms and ranches next January 1 may not differ greatly from a year earlier. Thus the 1945–46 supply of feed grains probably will be adequate to provide for about the same livestock production in total as in 1944–45 as well as for other indicated domestic requirements. Some reduction in carry-over of feed grains may occur, however, by the end of next season.

Commercial supplies of corn during the 1945–46 season will depend largely upon maturity of this year's crop. With a considerable part of the 1945 acreage planted late and if killing frosts are early this fall, a larger than average volume of corn will be of poor quality. Also, it is probable that a greater-than-usual proportion of the crop will be in forage and silage.

Total production of byproduct feeds for the 1945–46 feeding year probably will be about as large as in 1944–45, but production of high-protein feeds, particularly oilseed cake and meal, probably will not be quite so large. The most important reduction will be in cottonseed cake and meal. This will be offset to some extent by an increase in production of linseed cake and meal.

August 1 indications point to a 1945–46 supply of hay—production plus carry-over—of more than 116 million tons, only slightly less than the record in 1942–43. Thus the hay supply per animal unit probably will be one of the largest on record.

FOOD GRAINS

THE food-grain situation is highlighted by ample supplies of wheat for domestic and export requirements, with the supply for the year now indicated to be about 1,440 million bushels. This is considerably above the 982-million (1932–41) prewar average and is exceeded only by supplies in 1942 and 1943.

Heavy feeding and exports in recent months reduced the carry-over of old wheat on July 1 to about 281 million bushels. But in August the crop was indicated at 1,146 million bushels, the largest on record. Imports are likely to be small, perhaps only about 15 million bushels.

Disappearance of wheat for civilian and military food is expected to be about 530 million bushels, for seed 81 million, and for exports about 250 million. In 1944–45 about 85 million bushels were used for alcohol and 116 for feed on farms where grown. If the total for these two items is about the same in 1945–46, and if the carry-over is not reduced below 250 million bushels, about 125 million bushels would be left for purchase as feed, or for increases in other items.

The likely disappearance of rye in 1945–46 is again expected to exceed the crop and result in a reduction in the carry-over by July 1, 1946. Stocks on July 1, 1945, were estimated at 12.8 million bushels, which is the lowest since 1938. Increased use of rye for industrial alcohol and for use as feed in the past 2 years reduced the carry-over from a record high on July 1, 1943, of 47.1 million bushels. On the basis of the August 1 report, the 1945 crop was indicated at 27.9 million bushels. Imports of rye are expected to be somewhat larger than the 1.7 million bushels in 1944. These figures indicate a total supply of about 43 million bushels. Food use is expected to be about 8.3 million bushels, down slightly from 1944–45. Very little will be available for alcohol. Feed use is not expected to be as large as the 20 million estimated for 1944–45, but exports will exceed the 3.2 million bushels in 1944–45.

The August crop report indicated a record rice crop of 76.1 million bushels, but the hurricane damage in late August will reduce these prospects considerably. Because the prospective demands for military and civilian food in the Orient are so great civilian consumption may fall below the 1935–39 average of 5.7 pounds per capita if any substantial proportion of this military and export demand is met.

FRUIT

BECAUSE of a short apple crop the 1945 deciduous fruit crop this year is about one-eighth smaller than last year. Supplies of apples will be short this fall and winter, but those of pears, grapes, and prunes are expected to be generally ample. Supplies of cranberries this fall are expected to be much larger than the very short supplies a year ago. Although the condition of the new 1945–46 citrus crop is not quite as favorable as a year ago, supplies are expected to be ample this fall and winter.

Decreasing military and other non-civilian requirements for fresh and processed fruits, because of the end of the war, mean larger quantities will become available to civilians. Although fresh and dried fruits and canned fruit juices generally will be adequate, some canned fruits are likely to continue short this season. However, increased imports of bananas and canned pineapple juice will add to the domestic fruit supply.

Fresh deciduous fruits generally have been at ceiling levels thus far this season, but prices for citrus fruits receded from ceilings this summer. Except for apples, prices for fruits this fall may not be quite as high as a year earlier.

TRUCK CROPS

DESPITE unfavorable mid-summer growing weather in most of the Atlantic Seaboard States, production of fresh market truck crops in September is expected to be as large as a year earlier. Even so, prices received by farmers for fresh market truck crops early this fall are expected to remain generally above prices received a year earlier.

Early fall production may be 48 percent greater than the corresponding period last year for domestic type cabbage (including some used for sauerkraut), 6 percent less for celery, and 13 percent more for tomatoes.

Prospects this year compared to last year for production of truck crops for processing are for record-large crops of green peas and mint for oil, near-record large crops of snap beans and sweet corn, and nearly as large a crop of tomatoes. Total acreage planted this year to all truck crops for processing apparently will exceed that planted last year and may set a new record high.

Prices to growers for the four major processing vegetables (tomatoes, sweet corn, snap beans, and green peas), are being supported again this year at levels approximately the same as last year.

Due to considerable cut-backs in military requirements it is expected that civilian supplies of 1945 pack canned vegetables will be generally adequate to meet unrationed civilian demand in the 1945–46 pack year.

POTATOES

BECAUSE of military cut-backs and considerable improvement in production prospects, ample supplies of potatoes for civilians appear probable this coming fall and winter. Total production in 1945 is estimated at some 420 million bushels, nearly 41 million larger than last year's above-average crop. Most of the increase in production is the result of shifts in acreage toward the commercial areas with high yields per acre. This year's crop is expected to return a lower price per bushel to farmers than did the 1944 crop, but demand for potatoes at the lower prices is expected to be well sustained even in the face of considerable unemployment because of the support price at 90 percent of parity.

The prospective crop of sweetpotatoes at 67.1 million bushels is only a trifle larger than average and about 4.5 million bushels smaller than last year's crop. Because ceiling prices for the 1945 crop have been set higher than those for last year farmers will receive a somewhat higher average price per bushel for the 1945 crop of sweetpotatoes than for the 1944 crop.

TOBACCO

THE 1945 tobacco crop may be the largest ever produced, exceeding last year's record production of 1,950 million pounds. The expected increase this year over last is attributable to a larger acreage of flue-cured even though over-all yields per acre are below 1944. Another large planting is likely in 1946 because prices have been favorable this year and last, and the 1946 allotments will be at least as large as 1945.

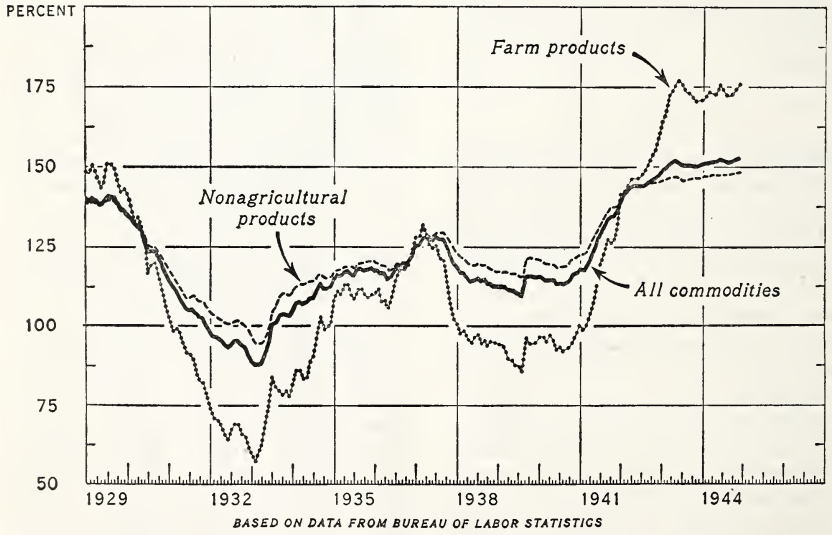
Stocks of all major types of tobacco except burley and dark air-cured are about the same as or slightly lower than a year ago. Burley stocks are substantially larger than last year, despite a record level of disappearance. The large carry-over and the record 1945 crop will result in a further increase in the supply of burley. In relation to disappearance, stocks of all other types of tobacco are below normal. The large 1945 crop of flue-cured will result in a slight increase in the 1945–46 season supply. The supply of dark air-cured will be larger next season, but the supply of cigar leaf will be considerably below both 1943–44 and 1944–45.

Demand for flue-cured tobacco, the only type now being sold by farmers, is strong again this season, and prices of most grades are above those of a year ago. It is possible under this year's price ceilings that this season's average price will be about 1 cent per pound above last year's average of 42.4 cents per pound. The highest average price ever received by flue-cured growers was 44.4 cents in 1919.

The over-all production of tobacco products is continuing at or near peak levels. Government procurement has declined since the end of the war. Domestic supplies of cigarettes are now substantially larger, and appear adequate to meet demand. But shortages are continuing in the lower priced classes of cigars.

WHOLESALE PRICES OF FARM AND NONAGRICULTURAL PRODUCTS AND OF ALL COMMODITIES, UNITED STATES, 1929-45

INDEX NUMBERS (1910-14=100)



BASED ON DATA FROM BUREAU OF LABOR STATISTICS

U. S. DEPARTMENT OF AGRICULTURE NEG. 25638 BUREAU OF AGRICULTURAL ECONOMICS

War Changes in European Food Production

CONTINENTAL Europe, excluding Russia, is normally a net importer of food; yet, their civilian populations and huge armies were fed through several years of war, without significant imports from the outside world. To do this necessitated radical reductions in the production of livestock products and the utilization of a much larger proportion of the crop production as food. But food production (in terms of calories) declined and the nutritive value was materially lowered. Even though the war has ended, changes in food production provide a basis for appraising the food needs of Europe during the reconstruction period.[1]

Data Often Inadequate

Measurement of wartime changes in Europe's food production is handicapped by several factors. In the belligerent countries statistics on production were confidential and any published estimates were often purposely biased by officials. During the war, dates and methods of collecting information on production were changed in several countries. Moreover, there was a tendency on the part of the officials in the occupied countries to under-report agricultural production in order to reduce the quantity of products which they were required to deliver to the Germans. Farmers in many countries were required to deliver all of their production to Government collecting agencies at fixed prices, except that needed for consumption on the farm or for livestock, feed, and seed. Consequently, where farmers under-reported the production they had, additional amounts were sold to black markets at greatly increased prices. All of these factors made it necessary to piece together information from several sources in an effort to estimate food production and utilization. In addition to these factors, the marked shifts which necessarily had to be made in farm practices because of the shortage of feeds, fertilizers, labor, and equipment needed in production, make the preparation of reliable estimates of food production extremely difficult. However, the estimates used here are believed to be reliable enough to verify the general conclusions drawn from them.

Before the war, continental European countries, excluding Russia, produced about 90 percent of their food supply. Each year they imported on the average about 125 million bushels of cereals for food, 600,000 tons of sugar, 1,800,000 tons of edible fats and oils and some fruits and vegetables. Imports of feed grains amounted to about 5.5 million tons annually, oil cake and equivalent of oil seeds about 4.5 million tons, and about 1 million tons of bran were obtained from imported feed grains. These imported feeds, in terms of food produced, equalled about 1.5 million tons of meat and cheese, of which a part was re-exported, and about 800,000 tons of edible fats. Because production of meats, eggs, and cheese, for the area as a whole, was slightly in excess of consumption, the combined net exports of these products totaled about 200,000 to 300,000 tons.

Methods Varied Widely

A considerable variation existed in the extent to which each country provided its own food supply before the war. In all of the eastern European countries from Estonia to Yugoslavia and Bulgaria, food production exceeded consumption. Denmark also was a net surplus producer of food, although large quantities of food and feed were imported. The Iberian Peninsula, before the Spanish Civil War, was practically self-sufficient in food products, and Italy, Czechoslovakia,

[1] This article will be followed by a discussion of the 1945–46 food situation in Europe in an early issue.—Editor.

663930°—45——4

and Sweden provided 90 to 95 percent of their food supply. All of the remaining countries of Europe, however, depended to a considerable extent on imports. France, Germany, Finland, Austria, and Greece imported 15 to 25 percent of their food while Norway, Belgium, Switzerland, and the Netherlands imported nearly half of their supply.

Importing Countries Hit Hard

With the coming of war, those countries heavily dependent on imports were forced to make drastic changes in production. First, the food output, in terms of calories, had to be increased wherever possible. This required a definite shift from the production of livestock to that of food crops. Secondly, all possible economies of processing and utilization had to be adopted. For example, the milling extraction rate of wheat and rye was increased from about 80 percent to more than 90 percent.

In Norway and the Low Countries, wheat was the major crop in prewar years, but because it was of inferior quality a large part was used for feed. With the coming of the blockade, however, a larger part of the wheat had to be utilized for food. The proportion of the rye crop used for food also was increased and the admixture of barley and oats with wheat and rye was required in making flour. Potato and vegetable production was increased wherever possible to provide more food and to supply roughage for cattle.

The increased utilization of crop production for food and the cutting off of the imports of feed concentrates required a drastic reduction in livestock production, particularly hogs and poultry which depend primarily on concentrates. Weather conditions during 1940 and 1941 also were unfavorable for crop production and hastened the liquidation of livestock. This temporarily increased the meat supply but by the end of 1941 livestock numbers and production had declined sharply. In a few countries livestock numbers continued to decline after 1942, but this decline was partially offset by increases in others; so that for Europe as a whole the decline since 1942 was slight until 1945.

Since most of the shifts in agricultural output occurred fairly early in the war, a comparison of food production in the different countries in 1943 with that of the prewar (1933–37) average gives an indication of the changes made in an attempt to increase food supplies. The changes in countries of northern and western Europe are shown by groups of commodities in the accompanying table. The lack of statistical data does not permit a similar tabulation for the eastern European countries, but by 1943 production in these countries is believed to have declined relatively little as surplus products were sorely needed to provide food for the armed forces of the Axis.

These percentages measure the change in farm output and do not take into account the changes in the total food supply which were brought about by more effective utilization of the produce marketed from the farm, such as increasing the extraction rates of grains, skimming milk before it is made available for general consumption, etc. They do, however, take into account the changes in utilization of products from the farm. The increase in the production of bread grains in Denmark, for example, was only 16 percent, but the quantity utilized for food increased nearly five times. This shift in utilization was common in nearly all countries and the utilization of potatoes as food has also increased. In Germany, potato production was about 80 percent of prewar, but the quantity used for food was much larger.

Total Crop Output Below Prewar

Despite efforts to increase production, output of crops grown for food in northern and western Europe in 1943 was about 5 percent below prewar. The greatest wartime shortage

was in edible oils and though several countries expanded their output sharply, total output was increased only 12 percent. Sugar production declined about 21 percent but most of the decline in crop output resulted from a 6-percent decline in the production of cereals. France, Italy, and Spain are all important cereal-producing countries and they recorded sharp decreases in output. The reduction in meats and poultry products was marked in all countries, but dairy production was maintained wherever possible because of the need for the vital food nutrients provided by these products. The greatest declines in dairy production were in the countries which normally exported dairy products or depended to a large extent upon imports for their feed supplies.

The prewar practice of importing large quantities of feedstuffs complicates the problem of measuring food production changes in many of the countries in northwestern Europe. This practice enabled farmers to specialize in the production of livestock products and when they had to depend upon their own feed supplies production had to be reduced sharply. If allowance is made for the marked decline in imports from prewar to 1943, production for food in most of these countries was somewhat higher in relation to prewar than is indicated by the change in total output. In the last column of the accompanying table, adjustments have been made for the change in feed imports because imported feedstuffs are used to supplement domestically grown feeds in the production of several different livestock products. The volume of production from these products is difficult to measure accurately, but such an adjustment provides a rough measure of the net output of food products from indigenous production.

Statistical data are not available for measuring the total food output in European countries in 1944. Preliminary indications are, however, that total production was slightly smaller than in 1943 on account of the continued strain of severe shortages of labor, fertilizers, draft power, and machinery on agriculture's productive capacity. The greatest declines in production were in areas of actual combat. Production in Italy and the Netherlands was most sharply reduced, but production in Germany and several eastern European countries also was curtailed by military activities.

The impact of military operations during 1944 also accounted for some

Food Production in Selected Countries of Northern and Western Europe, 1943, as a Percentage of the Prewar (1933–37) Average

[Measured in calories]

Country	Cereals	Fruits and vegetables	Edible oil crops	Sugar crops	Total crops	Meat, poultry, fish, eggs	Dairy products	Total livestock	Total production	Total [1] adjusted for feed imports
	Percent	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
Norway	409	195	[2]	[2]	249	43	71	59	116	138
Sweden	100	112	[2]	102	105	76	95	89	98	-------
Finland	92	111	[2]	55	93	73	63	66	81	-------
Denmark	477	157	[2]	104	190	48	79	62	93	119
Netherlands	186	127	750	73	138	30	60	45	90	109
Belgium	255	109	[2]	60	137	31	69	46	94	112
Spain	72	81	122	47	74	92	98	94	80	-------
France	95	107	250	55	93	63	71	66	86	-------
Germany	100	111	282	90	103	56	103	75	94	96
Italy	85	77	69	100	83	97	83	91	84	-------
Total	94	100	112	79	95	61	87	72	88	-------

[1] As several countries imported large quantities of feed concentrates before the war, the extent of the change in food output is not fully reflected unless adjustment is made for these imports in the base years.
[2] No production in prewar years.

decline in production and had a marked influence both on the collection and transport of food and on its effective utilization. Food processing factories have been damaged or destroyed and many products could not be properly processed or stored. No doubt, producers of farm products have continued to eat at or near prewar levels and the decline in food output has been borne largely by the nonfarm population. The continued fighting during 1944 also interfered with sowing of winter crops. This, together with unfavorable weather and the disrupting influence of land reforms, resulted in total plantings much below those of previous years and much below the acreage which has been planned.

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Office of Foreign Agricultural Relations

American Soybean Output in the Spotlight

SOYBEANS, the wonder crop of the Orient, is now Queen of American oil crops. Here its production has increased fortyfold in the past two decades. One of nature's most versatile crops, it has traveled far, if not fast, from Mukden, Manchuria to Decatur, Ill., in 50 centuries. Providing the principal source of income to thousands of growers, averaging a third of a billion dollars during the past 3 years, the soybean is 1 of the Nation's 10 leading crops, ranking with wheat, corn, cotton, and similar traditionally famous American crops.

Output Increased Fortyfold

When the "lights went out" in Europe in 1939 and America entered the war 2 years later, almost overnight soybeans became a critical war crop to meet the essential needs for domestic vegetable oil because Far Eastern sources had been cut off. American farmers increased the acreage of soybeans harvested for beans from 4 million acres in 1939 to 10 million in 1942, about 2½ times in 2 years. In 1942 the production reached the then staggering total of 187 million bushels. But in 1943 American farmers bettered their 1942 output by producing 193 million bushels, more than 40 times the 1924 output 20 years earlier. Production in 1944 continued high but not quite equal to the 1943 record crop, and the 1945 crop is now expected to come close to last year's near-record output. The combined soybean production of these 4 seasons almost equals that of the previous 2 decades.

Today the soybean is primarily a Corn Belt crop. Last year 84 percent of the Nation's total acreage harvested for beans was grown in the five States of Ohio, Indiana, Illinois, Iowa, and Missouri. A year ago these five States raised almost 9 million acres of the 10½ million grown in the entire country, and 89 percent of all the beans produced in the entire country. Illinois, by far the leading producing State, harvested over 70 million bushels of beans during each of the past 2 years or almost twice as many as Iowa, its closest rival. Although the Soybean Belt coincides rather closely with the Corn Belt, soybeans are produced in other areas such as the Delta States and Eastern Seaboard area from Pennsylvania through North Carolina.

Southern Crop Originally

Thirty years ago the soybean producing area of this country was primarily the Southeastern States, comprising the area south and east of the Ohio and Mississippi Rivers. It was then considered a hay crop with the production of beans a minor consideration. During the early days of the crop in this country it was not considered feasible to grow it in the Northern States because the weather was considered too severe and the growing season too short for the crop to mature. Thanks to experiments and plant breeding quicker maturing

varieties were developed and the comparatively short season in the northern latitudes seemed to hasten plant development, especially development of the pods and beans—the very thing that has made the soybean one of America's wonder crops.

The history of the soybean is long and interesting. More than 5,000 years ago it was an important food for the people of China and other sections of the Orient. It was one of the oldest crops grown by man but was little known to the western world until the end of the seventeenth century. Though first mentioned in American literature in 1804 it was not until a comparatively few years ago that the crop came into its own in this country.

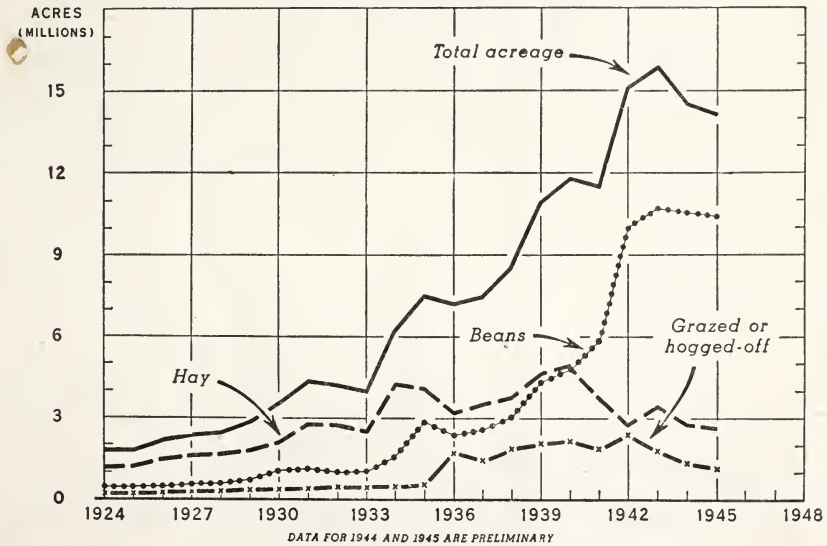
As a hay crop soybean acreage expanded rapidly in the East Central States and into the southern parts of Indiana and Illinois. Expansion before World War I did not carry much farther because as a hay crop soybeans could not compete successfully with red clover and alfalfa. North Carolina crushed the first American soybeans for oil in 1915. Although acreage shifts began to occur by 1924 and North Carolina was still the leading State as far as total acreage was concerned, Illinois had become the leading State in the production for beans. The acreage had already begun to shift to the North Central States—the traditional Corn Belt—and today this group of States dominates the production for beans.

In contrast, the national acreage of soybeans has not changed radically in the past 3 years and the Soybean Belt has seemed to establish a definite pattern. Through trial and error farmers are beginning to discover where the crop grows most successfully and where it should be grown with caution.

Probably the most important question now before the soybean producer is: How much of the war expansion can be maintained on a profitable basis in the future?

Regardless of the adverse factors regarding the crop such as compe-

SOYBEANS: ACREAGE FOR HAY, BEANS, GRAZED OR HOGGED-OFF, AND EQUIVALENT OF TOTAL SOLID ACREAGE, UNITED STATES, 1924-45



DATA FOR 1944 AND 1945 ARE PRELIMINARY

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tition from both domestic and imported vegetable oils, there is a bright side. Rapid strides are being made in the development of new varieties adapted to specific areas. Farmers can be assured that progress and better yielding varieties, new uses for soya products for both food and industrial purposes, will all aid the producer in the coming years. Facilities for processing soybeans have greatly expanded during the war years. Even with the war in the Orient over, it may be many years before soybean production in that area can meet more than local demands, with little for export. The potential uses of the soybean seem only to have been scratched. It seems reasonable to expect that expanded uses of soybeans and soybean products will maintain the soybean as one of America's principal crops, at least in the immediate years ahead.

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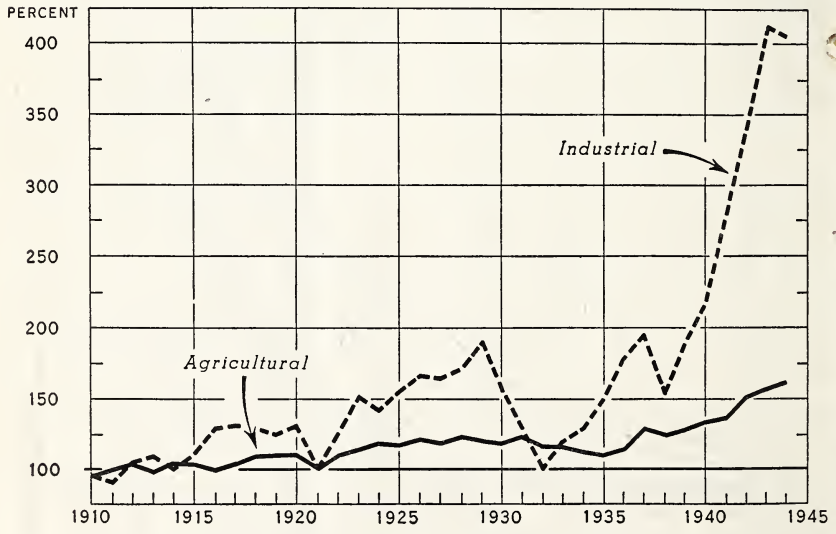
Wartime Production Trends Per Worker

THE volume of goods produced per worker in both industry and agriculture increased nearly one-half during the war. In agriculture, this increase occurred at a time when the number of workers were declining appreciably while the total output was rising at a more rapid rate than in prewar years. In contrast, the increase in industry—manufacturing and mining—was accompanied by a large increase in the number employed and an even larger increase in total production. These increased outputs per worker are largely the result of increased mechanization and improved technology, combined with the stimulus of unprecedentedly large wartime demands. The wartime increases followed longtime prewar upward trends

VOLUME OF PRODUCTION: AGRICULTURAL AND INDUSTRIAL, UNITED STATES, 1910-44

INDEX NUMBERS (1910-14=100)



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in productivity, but the rate of increase has been much greater than in the prewar period.

The volume of agricultural commodities produced in the United States increased about one-fifth from 1910–14 to 1935–39. In contrast, the volume of industrial production—the output of factories and mines—increased nearly three-fourths during

EMPLOYMENT: AGRICULTURAL AND INDUSTRIAL, UNITED STATES, 1910-44

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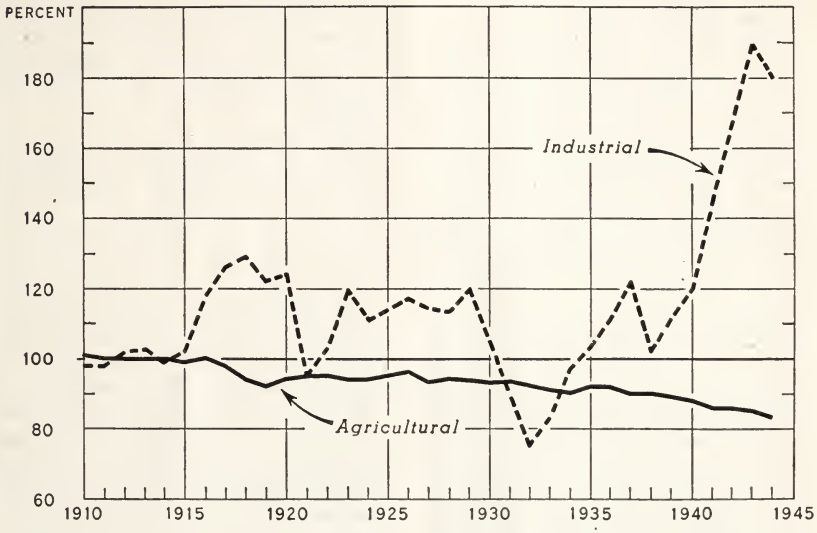

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PRODUCTION PER WORKER: AGRICULTURAL AND INDUSTRIAL, UNITED STATES, 1910-44.

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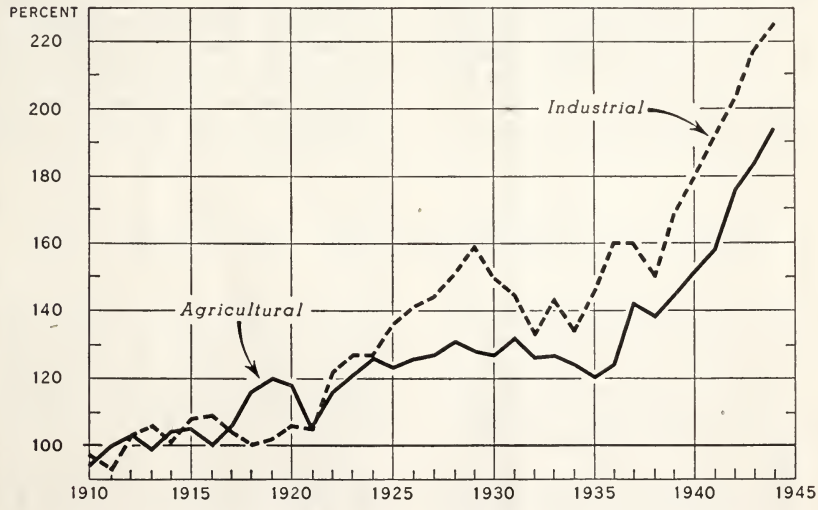

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the same period. However, total agricultural production in prewar years was much more stable than in industry. Industrial production dropped nearly 50 percent from 1929 to 1932. The largest change in agricultural production during a period of comparable length was an increase of 18 percent from 1921 to 1924.

Factors Affecting Trends

Numerous factors influence the output of both agriculture and industry. In agriculture, weather and resulting crop yields have been important. The effects of adverse weather on production are spread over two or more years. With crops, yields are low and production small the first year, while livestock production is reduced the following year because of smaller feed supplies.

Changes in industrial production have been closely related to the business cycle and general economic conditions. Industrial production dropped materially in 1921 in the depression following World War I. The severe depression of the early 1930's produced the largest drop and the recession in 1938 was accompanied by a decline of about one-fifth.

The demands of World War II were responsible for about a 150-percent increase in industrial output and a rise of a third in agricultural production above the 1935–39 average. The output of the metal fabricating and chemical industries showed the largest increase during the war because of the direct military use of many of the products of such industries. The production of raw materials for industry increased much less because the use of many raw materials for civilian purposes was greatly reduced. Also many types of war goods require considerably more fabrication than do most civilian goods. This has resulted in a greater increase in the output of finished goods than in the production of raw materials for industry.

The number of persons engaged in agriculture declined rather steadily from the beginning of World War I to the outbreak of World War II, with the average number employed in 1935–39 about 10 percent smaller than in 1910–14. The number employed during early 1930's was apparently unaffected by the depression which started in 1929 and, contrary to the opinion of many, farming was not a very large-scale refuge for unemployed people at that time, though total farm population increased while agricultural employment was actually declining.

The decline in agricultural employment was accelerated during World War II. From 1939 to 1944 it declined nearly 7 percent, about 1⅓ percent per year or three times the prewar rate.

Employment in industry, that is, manufacturing and mining, was characterized by wide and irregular fluctuations throughout the period prior to World War II, though the trend was downward. The first World War and subsequent fluctuations in the business cycle appear to have been the major factors accounting for the irregular shifts. The depression in 1921 saw a decline of 23 percent in the number working and the depression of the early 1930's saw a 31-percent decline.

During World War II, industrial employment increased rapidly in response to the need for munitions of all sorts. The increase from 1935–39 to the peak reached in 1943 amounted to 73 percent. The increase in World War I was much smaller—29 percent from 1910–14 to 1918. All of the increase in industrial employment in World War II occurred in manufacturing, where the number of workers rose 79 percent from 1935–39 to 1943. In mining, the number decreased 7 percent during the same period. From 1910–14 to 1918 the number of factory workers rose 31 percent and the number employed in mining 11 percent.

While agricultural and industrial employment from the end of World War I to the outbreak of World War

II in Europe was declining, the total number of people employed in the United States was increasing. Unfortunately, data showing total employment since 1910 which are exactly comparable to the figures used for agricultural and industrial employment are not available. However, data published by the National Industrial Conference Board indicate that total employment in the United States increased approximately 17 percent from 1910–14 to 1935–39. Employment outside of agriculture, mining, and manufacturing increased about 38 percent. The largest increases occurred in trade and service occupations.

Greater Output Per Worker

Since 1910 there has been an upward trend in production per worker in both agriculture and industry. The increase over the entire period from 1910 to 1944 has been somewhat greater for industry than for agriculture, but during World War II the rise was slightly greater in agriculture than industry. From the 1935–39 average to 1944, production per worker in agriculture increased 45 percent as compared with 43 percent for industry.

During the first World War, agricultural production per worker rose considerably and in 1919 was 20 percent above the 1910–14 average. In contrast, industrial production per worker declined about 8 percent from 1915 to 1918. No comparable decline in industrial productivity occurred even at the start of World War II.

The year 1929 saw the peacetime peak in industrial production, employment and production per worker, followed by very large declines during the next 3 years. From 1929 to 1932, industrial production declined 57 percent, industrial employment 38 percent and industrial production per worker 16 percent. Industry generally did not reduce the number of workers in proportion to the decline in output. Consequently, the physical output per worker declined, although declines in wage rates and hours worked may have prevented the output per dollar of wages from declining. The recession of 1938 produced the same effects on a smaller scale as appeared in the early 1930's.

Agricultural production per worker also declined during the depression of the 1930's, but the timing differed considerably from that in industry. Output per industrial worker reached a peak in 1931 and then declined about 9 percent by 1935, while agricultural employment changed only 1 percent. The low point in agricultural output per worker in 1935 was largely the result of weather and its effect on crop yields. Crop yields in 1934 were 19 percent below the 1923–32 average. This lowered production in both 1934 and 1935, because much of the feed consumed by livestock in 1935 was produced in 1934.

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Pan-American Agricultural Conference

On the eve of the Japanese surrender prominent agricultural leaders from the 21 American republics gathered in Caracas, Venezuela, from July 23 to August 7 to compare ideas and lay the groundwork for the future of peacetime agricultural programs in the Western Hemisphere. This was the Third Inter-American Conference on Agriculture, the first being held in Washington in 1930 and the second at Mexico City in 1942.

Ministers of agriculture or other cabinet officers headed the delegations of eight countries. Leaders of farm organizations, Government agricul-

tural experts together with the Under Secretary of Agriculture, and representatives of State agricultural colleges and experiment stations composed the United States Delegation.

Basic Principles

During 2 weeks of intensive study and deliberation, a number of resolutions were passed which have far-reaching significance for farmers everywhere in the Americas, and for the government agencies and business firms who work directly with farmers. The conference was notable for its emphasis upon questions involving inter-American economic policy and for its clear recognition of mutual dependence and the necessity of harmonious, united action in meeting the agricultural adjustment problems certain to be encountered now that the war has ended.

Many of the 98 resolutions adopted reemphasize the benefits to agricultural development of exchanging students and scientists, thereby spreading knowledge and application of modern agricultural science and making possible improvements in the income and living of farm people. The collaboration between various Latin-American governments and agencies of the United States, notably the Department of Agriculture and the Institute of Inter-American Affairs, was commended and endorsed, with the recommendation that it be continued but given "as large an inter-American character as possible."

Other resolutions, in the same vein, recommended that governments which have not already done so strengthen their agricultural education institutions at primary, secondary, and college levels, their agricultural extension services, and their farmers' cooperative organizations. Also endorsed was the idea of comprehensive agricultural development plans by national governments in order to assure high incomes and good living to farmers and an abundance of food and other agricultural products for city consumers.

In both previous Inter-American Conferences on Agriculture, in 1930 and again in 1942, resolutions had been adopted urging the establishment of some kind of inter-American credit institution which would meet the credit needs of an expanding agriculture. The United Nations agreements on International Monetary Stabilization and the World Bank for Reconstruction and Development, at Bretton Woods in 1944, extended these concepts to world dimensions, interrupting legislative processes looking to the establishment of the Inter-American Bank, as earlier proposed.

The American republics at Caracas implicitly endorsed the Bretton Woods plans, but urged special consideration in the administration of the monetary fund for those republics which have established preferential exchange rates to facilitate war-needed agricultural production. Otherwise, it was believed, undue dislocations and maladjustments might result in their economies.

The Caracas Conference also specifically recommended that the realization of the regional aims for an inter-American agricultural credit institution be entrusted to the World Bank for Reconstruction and Development. It was further proposed, however, that there be established a special department for the extension of agricultural credit to the American countries. At the same time, the American nations were called upon to create the necessary national legal instruments to implement the operations of the contemplated World Bank.

Trade Policies

Elements of a regional point of view were reflected in certain recommendations concerned with studies and economic policy in the realm of agricultural production planning and trade. Specific reference was made to the so-called special or industrial crops (i. e., rubber, hard fibers, medicinal plants, insecticides, vegetable oils, and

others). It was pointed out that the scarcity of these products in times of war weakens the national defense and brings great hardship to the civilian populations. The conference asked that Inter-American economic policy now provide a permanent place for these strategic crops in the agriculture of the Americas.

Certain basic principles were agreed upon which should govern the collective readjustment of agricultural production and trade to postwar conditions. They recognize, first, that expansion of production and consumption provides the only durable solution, and that efficiency of production, based upon natural advantages, must be a cardinal principle in the adjustment programs. The principle of relative efficiency, however, must be moderated in its application out of recognition of the traditional production patterns of the several countries, and of the fact that the necessities of war have induced inefficient production in some instances. The adjustments must be orderly and gradual if national economies are not to be unjustly and unduly disturbed. The income and living of producer groups must be protected without, however, disregarding the rights of consumer nations to dependable and adequate supplies at reasonable cost.

International Agreements

To these ends, the American nations were called upon to adopt appropriate measures of effective cooperation, avoiding artificial measures of exaggerated nationalism, maximizing technical collaboration, reducing trade barriers, avoiding "dumping," and promoting sound agricultural industries in order to increase employment and income for rural workers.

It was recognized that the application of expansionist economic policies, as endorsed by the conference, might on occasion result in temporary surpluses of specific commodities, and that international commodity agreements may constitute an appropriate means for solving these problems. Certain basic principles were declared, to serve as a basis for such agreements.

International agreements should cover specific commodities; their formulation and administration should have the participation of both producer and consumer nations, according to their respective interest; efficiency in production and international cooperation in necessary adjustments are essential; equitable division of the market and reasonable price protection, with accompanying measures to expand consumption are also important. No agreements implying limitation of production or export should be applied until the basic causes of the problem have been investigated, and until it has been conclusively established that a burdensome excess of the commodity actually exists or is threatened, and that the condition cannot be corrected through the operation of normal market forces. Moreover, a necessary counterpart of such an agreement is a companion program of adjustment calculated to assure substantial progress toward solution of the problem during the life of the agreement. It was further recommended that all such agreements be carefully limited in their duration and that they be coordinated in accordance with the recommendations of an international agency charged with the study of the operations of all such international commodity agreements.

Related Organizations

In the Caracas Conference, the American nations recognized the preeminent place of the Food and Agriculture Organization in world-wide planning and programs concerning food and agriculture, and at the same time that the food and agricultural programs of the American nations are of world-wide concern. The conference recommended that the Pan-American Union establish liaison with FAO to assure participation by the Pan-American Union in the meetings

of FAO. It was also recommended that the best methods of conducting future inter-American conferences be explored to assure integration of efforts of all international agencies dealing with food and agriculture, and the maximum effectiveness of their programs to the end that all peoples of the world might enjoy the highest attainable standard of living.

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Trends in Tomato Production and Utilization

UNTIL about a century ago, the tomato, or love apple as it was formerly called, was considered a poisonous fruit in this country. Now it has attained the position of "king" of the vegetables, with a total "commercial" production in 1944 of nearly 4 million tons (150 million bushels) for fresh use and processing, and with a value of about 166 million dollars. In addition to this "commercial" production, possibly another 3 million tons were produced in farm, urban, and local-market gardens.

Tomatoes are now grown in every State in the Union, and on a commercial scale in most States. In 1944, only one-fourth of 1 percent of the total harvested crop acreage was devoted to "commercial" tomatoes, but the value of the crop amounted to a little more than 1 percent of the value of all crops.

South American Product

Although the tomato is a perennial in its natural state in western South America, it is grown as an annual in temperate zones. Little is known of its early history and development, but apparently it was known to and eaten by the ancient Mexicans, who planted it in the maize fields and called it tomati. The earliest references in literature describe about the same forms that are grown today, and these forms have never been found in a truly wild state. It is believed, therefore, that the tomato was improved considerably beyond the wild state when Columbus discovered America.

Spanish traders introduced the tomato to Europe in the sixteenth century by bringing seeds from the New World. First grown as ornamentals, especially in England, by the end of the eighteenth century tomatoes were grown extensively in Italy for food purposes. But the people of the United States did not accept the tomato as being edible till half a century later.

Rapid Increase After First War

After World War I, commercial tomato production in the United States increased rapidly through 1929, slightly more than held its own during the depression of the early 1930's, and again increased rapidly prior to and during the conflict just ended. During the period 1940–44, commercial production averaged nearly 3.5 million tons annually—about 2½ times the 1920–24 average of a little more than 1.3 million tons.

Industrial development and increased emphasis on the nutritive value of vegetables and vegetable juices have played a major part in the continued increase in production, although improved cultural methods and transportation and marketing facilities have also had their effects. The tomato is recognized as a good source of vitamins C and A.

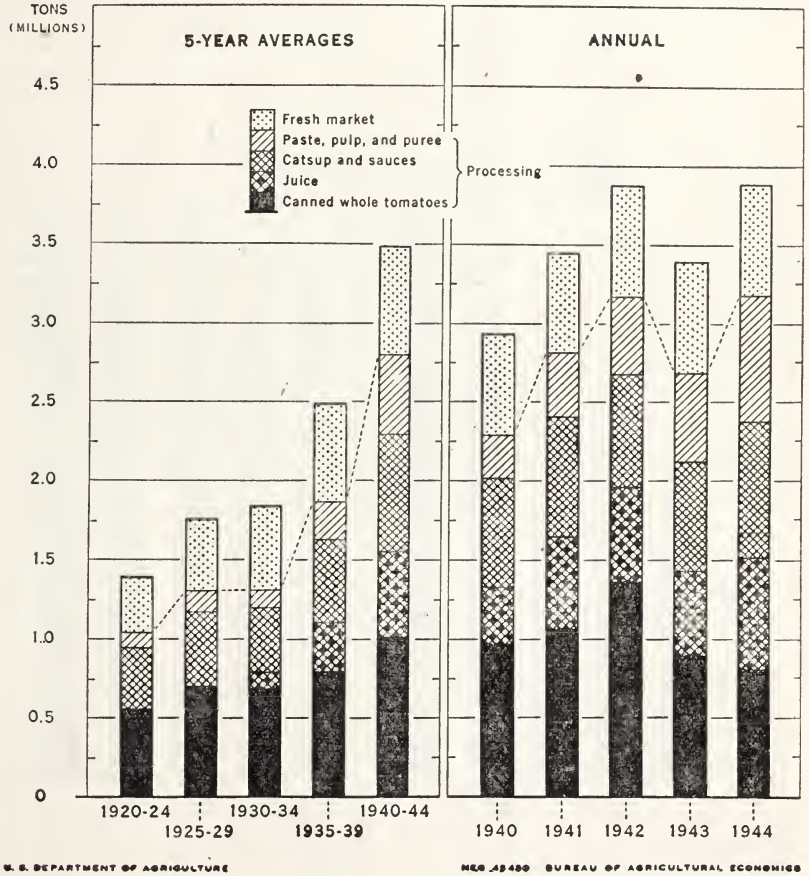
There has been a tendency toward concentration of commercial tomato growing, especially in the areas more remote from consuming centers. In 1920, about four-fifths of the crop was produced in 11 States, while in 1944 these same States accounted for nearly

nine-tenths of the total commercial crop. California consistently has been the leading producer, followed by Indiana, Maryland, and New Jersey. These four States, combined, usually account for slightly more than one-half the commercial tomato supply.

Prior to 1940, approximately three-fourths of the tomato crop was processed—canned whole or manufactured into tomato products such as juice, catsup, etc. With war demands for the products at a high level, an average of four-fifths of the total crop was processed in the period 1940–44. As in the case of all tomatoes, California, Indiana, Maryland, and New Jersey are the leading producers of tomatoes for processing, with Pennsylvania, New York, Ohio, Virginia, Delaware, and Utah rounding out the 10 more important States.

Although the tonnage of tomatoes utilized for canning whole has increased over the years, the percentage of the total thus utilized has dropped. Prior to 1935, slightly more than one-half of the crop for processing was canned whole, but since that time approximately four-tenths of the total have been so used. Even so, an average of slightly more than a million tons of whole tomatoes found their way into cans during the period 1940–44.

TOMATOES: COMMERCIAL PRODUCTION AND UTILIZATION, UNITED STATES, 5-YEAR AVERAGES 1920-44 AND ANNUAL, 1940-44



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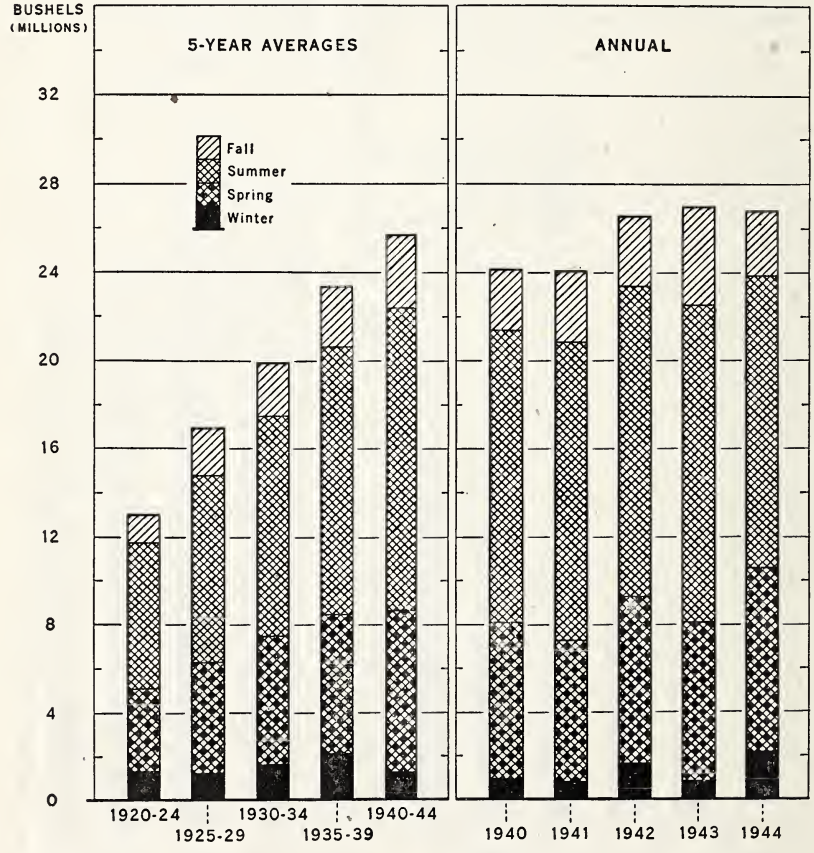
The use of tomatoes for juice manufacture has grown phenomenally since 1929, the first year for which there is a record. In that year, about 5,000 tons of tomatoes were converted to juice. In 1944, about 700,000 tons were used in juice manufacture, with an average of over 500,000 tons annually, or about one-fifth of all tomatoes for processing, so utilized during the 1940–44 period. The rapid growth of juice manufacture doubtless stems, at least in part, from the emphasis placed on the nutritive value of the juice, especially from the standpoint of vitamin C and A value.

The use of tomatoes in the manufacture of catsup and sauces also has increased in tonnage but decreased as a percentage of the total crop. During 1920–24, an average of approximately 380,000 tons, or nearly four-tenths of the crop, were manufactured into these products annually. By 1940–44, the average tonnage had increased to nearly 750,000 tons, which was about one-fourth of total production. War uses increased the demand for paste, pulp, and puree. From 1920–24 to 1940–44, the average an-

TOMATOES: COMMERCIAL PRODUCTION FOR FRESH MARKET, UNITED STATES, BY SEASONAL GROUPS, 5-YEAR AVERAGES, 1920-44 AND ANNUAL, 1940-44



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nual tonnage utilized for these products jumped from less than 100,000 tons to more than 500,000 tons. Nearly 800,000 tons were used in 1944. Thus, nearly one-fifth of all processing tomatoes were manufactured into these products during 1940–44 compared with less than one-tenth in 1920–24.

One-fourth Sold Fresh

Ordinarily, about one-fourth of the total "commercial" tomato crop is sold for use in the fresh form. However, value of the fresh market crop in 1944 was nearly one-half the total value of all commercial tomatoes. These tomatoes, for the most part, are picked either in the mature green or pink stage and ripen after picking. Market tomatoes are grown commercially in most States, but the leading 10 States usually account for about eight-tenths of the total.

Fresh tomatoes are available the year round, starting with the winter crop in Florida and winding up with the fall crop in California, Texas, and Florida. All of the domestic winter crop, usually about one-tenth of the annual total, is grown in Florida. Peak shipments occur in February and March. These winter supplies are augmented by imports from Mexico and Cuba. The spring crop is grown principally in Texas, California, and Florida and usually comprises about three-tenths of the annual crop. Shipments are active throughout the spring months. The summer crop accounts for approximately one-half the crop for the entire year, and is grown mostly in Northern and Eastern States and in California and other Western States. Abundant supplies usually are available throughout the summer. The remaining one-tenth of the annual supply is harvested in the fall months. California is the principal source of tomatoes early in the fall, while Texas and Florida produce late fall crops.

The tomato is well established as a "must item" in the Nation's diet. During recent years, State and Federal agencies have carried on extensive research programs in an effort to improve the quality and yields of tomatoes. These efforts have resulted in the introduction of a number of new varieties with certain desirable characteristics, especially resistance to disease such as fusarium wilt, nailhead rust, leaf spot, leaf mold, mosaic and curly top, and adaptability to a specific environment. Although large smooth, high-quality fruits and high yields continue to be important objectives, the disease problem has become the primary consideration, and any new variety introduced is almost certain to be resistant to at least one troublesome disease. These developments should enhance the possibility of profitably growing high-quality tomatoes in the commercial areas of the country.

Experimentation in air transport may develop wider demand for fresh tomatoes. Possibly, vine-ripened tomatoes may be available in all large consuming markets the year round and it is believed this product will enjoy a greater demand than the "green wraps" now generally available from the more distant producing areas. However, air-transport of vegetables still is on an experimental basis, and it probably will be some time before facilities will be available for large scale air shipments. The quick-freeze process has provided wider outlets for many fruits and vegetables, but thus far tomatoes have not been successfully frozen and it seems doubtful that this outlet will apply to tomatoes. Better quality, high yields, and improved transportation and marketing facilities seem to offer the best solution to problems of the future.

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Year and month	Industrial production (1935–39 = 100) [1]	Income of industrial workers (1935–39 = 100) [2]	1910–14 = 100				Index of prices received by farmers (August 1909–July 1914 = 100)			
			Wholesale prices of all commodities [3]	Prices paid by farmers		Farm wage rates	Livestock and products			
				Commodities	Commodities interest and taxes		Dairy products	Poultry and eggs	Meat animals	All livestock
1910–14 average	58	50	100	100	100	100	100	101	101	101
1915–19 average	72	90	158	151	150	148	148	154	163	158
1920–24 average	75	122	160	161	173	178	159	163	123	142
1925–29 average	98	129	143	155	168	179	160	155	148	154
1930–34 average	74	78	107	122	135	115	105	94	85	93
1935–39 average	100	100	118	125	128	118	119	109	119	117
1940–44 average	192	234	139	150	148	212	162	146	171	164
1941	162	169	127	131	132	154	139	121	146	140
1942	199	241	144	152	150	201	162	151	188	173
1943	239	318	151	167	162	264	193	190	209	200
1944	235	325	152	176	170	315	198	174	200	194
1944—August	232	324	152	176	170	-------	196	171	201	194
September	231	320	152	176	170	-------	198	179	200	196
October	232	320	152	176	170	325	201	190	201	199
November	232	318	152	177	171	-------	203	207	200	202
December	232	322	153	178	171	-------	203	211	198	202
1945—January	234	322	153	179	172	324	202	199	203	202
February	236	320	154	179	172	-------	200	183	209	201
March	235	318	154	180	173	-------	198	175	211	200
April	230	310	154	180	173	335	194	176	215	201
May	226	299	155	180	173	-------	192	179	217	202
June	[4] 220	297	155	180	173	340	191	189	216	203
July	212	-------	155	180	173	362	192	197	215	205
August	-------	-------	-------	180	173	-------	195	207	212	206

Year and month	Index of prices received by farmers (August 1909–July 1914 = 100)									Parity ratio [5]
	Crops								All crops and livestock	
	Food grains	Feed grains and hay	Tobacco	Cotton	Oil bearing crops	Fruit	Truck crops	All crops		
1910–14 average	100	101	102	96	98	99	-------	99	100	100
1915–19 average	193	164	187	168	187	125	-------	168	162	106
1920–24 average	147	126	192	189	149	148	[6] 143	160	151	86
1925–29 average	140	119	172	145	129	141	140	143	149	89
1930–34 average	70	76	119	74	72	94	106	86	90	66
1935–39 average	94	95	175	83	106	83	102	97	107	84
1940–44 average	123	119	245	131	159	133	172	143	154	103
1941	97	89	159	107	130	85	129	106	124	94
1942	120	111	252	149	172	114	163	142	159	106
1943	148	147	325	160	190	179	245	183	192	119
1944	165	166	354	164	209	215	212	194	195	115
1944—August	156	166	355	162	209	214	186	191	193	114
September	155	162	358	170	207	206	166	188	192	113
October	164	161	357	171	211	205	153	187	194	114
November	165	157	368	168	215	195	188	189	196	115
December	167	160	364	168	215	206	228	196	200	117
1945—January	169	163	365	163	214	205	262	200	201	117
February	169	164	360	161	215	211	223	197	199	116
March	171	166	359	163	215	211	203	196	198	114
April	172	162	362	163	215	221	259	204	203	117
May	172	161	363	165	216	227	193	198	200	116
June	173	162	364	169	217	237	269	210	206	119
July	169	161	364	171	221	237	244	207	206	119
August	167	158	367	172	215	214	240	202	204	118

[1] Federal Reserve Board, adjusted for seasonal variation, revised November 1943.
[2] Total income, adjusted for seasonal variation, revised February 1945.
[3] Bureau of Labor Statistics. [4] Revised.
[5] Ratio of prices received by farmers to prices paid, interest, and taxes. [6] 1924 only.

NOTE.—The index numbers of industrial production and of industrial workers' income, shown above, are not comparable in several respects. The production index includes only mining and manufacturing; the income index also includes transportation. The production index is intended to measure volume, whereas the income index is affected by wage rates as well as by time worked. There is usually a time lag between changes in volume of production and workers' income since output can be increased or decreased to some extent without much change in the number of workers.

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